

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously Presented) A semiconductor device comprising:
a semiconductor layer formed on an insulating surface, and having at least a source region, a drain region, and a channel formation region interposed therebetween;
a first insulating film formed on said semiconductor layer;
at least one electrode formed on said first insulating film, and overlapping said channel formation region;
a source wiring formed on said first insulating film;
a second insulating film covering at least said at least one electrode and said source wiring;
and
a gate wiring formed over said second insulating film, and connected to said at least one electrode.
2. (Original) A semiconductor device according to claim 1, wherein said gate wiring overlaps a portion of said semiconductor layer containing at least said channel formation region.
3. (Previously Presented) A semiconductor device according to claim 1, wherein said at least one electrode comprises a gate electrode.
4. (Previously Presented) A semiconductor device according to claim 1, wherein said at least one electrode and said source wiring comprise a same material.

5. (Original) A semiconductor device according to claim 1, wherein a material of said gate wiring comprises one or a plurality of elements selected from the group consisting of poly-Si, W, WSi_x , Al, Cu, Ta, Cr and Mo.

6. (Original) A semiconductor device according to claim 1, wherein said first insulating film comprises a gate insulating film.

7. (Original) A semiconductor device according to claim 1, wherein said second insulating film further comprises a first insulating layer containing silicon as a main component and a second insulating layer containing an organic resin material.

8. (Previously Presented) A semiconductor device according to claim 1, wherein said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.

9. (Previously Presented) A semiconductor device comprising:
a semiconductor layer formed on an insulating surface, and having at least a source region, a drain region, and a channel formation region interposed therebetween;
a first insulating film formed on said semiconductor layer;
at least one electrode formed on said first insulating film, and overlapping said channel formation region;
a source wiring formed on said first insulating film;
a second insulating film covering at least said at least one electrode and said source wiring;
a gate wiring formed over said second insulating film, and connected to said at least one electrode;

a connection electrode formed over said second insulating film, and connected to said source wiring and said semiconductor layer; and

a pixel electrode formed over said second insulating film, and electrically connected to said semiconductor layer.

10. (Original) A semiconductor device according to claim 9, wherein said pixel electrode overlaps said source wiring.

11. (Original) A semiconductor device according to claim 9, wherein said gate wiring overlaps a portion of said semiconductor layer containing at least said channel formation region.

12. (Previously Presented) A semiconductor device according to claim 9, wherein said at least one electrode comprises a gate electrode.

13. (Previously Presented) A semiconductor device according to claim 9, wherein said at least one electrode and said source wiring comprise a same material.

14. (Original) A semiconductor device according to claim 9, wherein said pixel electrode, said connection electrode and said gate wiring comprise a same material.

15. (Original) A semiconductor device according to claim 9, wherein a material of said gate wiring comprises one or a plurality of elements selected from the group consisting of poly-Si, W, WSi_x, Al, Cu, Ta, Cr and Mo.

16. (Original) A semiconductor device according to claim 9, wherein said first insulating film comprises a gate insulating film.

17. (Original) A semiconductor device according to claim 9, wherein said second insulating film further comprises a first insulating layer containing silicon as a main component and a second insulating layer containing an organic resin material.

18. (Previously Presented) A semiconductor device according to claim 9, wherein one pixel including said pixel electrode forms a storage capacitor between said semiconductor layer connected to said pixel electrode and said at least one electrode connected to a gate wiring of an adjacent pixel, using said first insulating film as a dielectric.

19. (Original) A semiconductor device according to claim 9, wherein an impurity element for imparting a p-type conductivity is added to said semiconductor layer connected to said pixel electrode.

20. (Previously Presented) A semiconductor device according to claim 9, said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.

21. (Previously Presented) A semiconductor device comprising:
a semiconductor layer and at least one electrode including a gate electrode adjacent to said semiconductor layer with a first insulating film interposed therebetween;
a source wiring formed on said first insulating film;
a second insulating film covering at least said at least one electrode and said source wiring;
a gate wiring formed over said second insulating film, and electrically connected to said at least one electrode; and
a pixel electrode electrically connected to said semiconductor layer,
wherein said pixel electrode is formed over said second insulating film.

22. (Original) A semiconductor device according to claim 21, wherein said gate wiring overlaps a portion of said semiconductor layer containing at least said channel formation region.

23. (Previously Presented) A semiconductor device according to claim 21, wherein said at least one electrode and said source wiring comprise a same material.

24. (Original) A semiconductor device according to claim 21, wherein a material of said gate wiring comprises one or a plurality of elements selected from the group consisting of poly-Si, W, WSi_x , Al, Cu, Ta, Cr and Mo.

25. (Original) A semiconductor device according to claim 21, wherein said first insulating film comprises a gate insulating film.

26. (Original) A semiconductor device according to claim 21, wherein said second insulating film further comprises a first insulating layer containing silicon as a main component and a second insulating layer containing an organic resin material.

27. (Previously Presented) A semiconductor device according to claim 21, wherein said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.

28. (Previously Presented) A semiconductor device comprising a pair of substrates and a liquid crystal interposed therebetween, one of said pair of substrates having at least a pixel portion and a driver circuit, said pixel portion comprising:

a semiconductor layer formed on an insulating surface, and having at least a source region, a drain region and a channel formation region interposed therebetween;

a first insulating film formed on said semiconductor layer;

at least one electrode formed on said first insulating film, and overlapping at least said channel formation region;

a source wiring formed on said first insulating film;

a second insulating film covering at least said at least one electrode and said source wiring;

a gate wiring formed over said second insulating film, and connected to said at least one electrode;

a connection electrode formed over said second insulating film, and connected to said source wiring and said semiconductor layer; and

a pixel electrode formed over said second insulating film, and electrically connected to said semiconductor layer, and

wherein the other one of said pair of substrates comprises a light-shielding film in which a red color filter and a blue color filter are laminated so as to overlap said semiconductor layer.

29. (Original) A semiconductor device according to claim 28, further comprising a common wiring on said second insulating film, wherein said pixel electrode and said common wiring are arranged so that an electric field substantially parallel to a surface of said substrate is generated.

30. (Original) A semiconductor device according to claim 28, said semiconductor device is a reflection-type liquid crystal display device in which said pixel electrode comprises a film containing Al or Ag or a lamination film thereof.

31. (Original) A semiconductor device according to claim 28, said semiconductor device is a transmission-type liquid crystal display device in which said pixel electrode comprises a transparent electrically conductive film.

32. (Previously Presented) A semiconductor device according to claim 28, said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.

33. (Previously Presented) A semiconductor device comprising a pair of substrates and a liquid crystal interposed therebetween, one of said pair of substrates having at least a pixel portion and a driver circuit, said pixel portion comprising:

- a semiconductor layer formed on an insulating surface, and having at least a source region, a drain region and a channel formation region interposed therebetween;

- a first insulating film formed on said semiconductor layer;

- at least one electrode formed on said first insulating film, and overlapping at least said channel formation region;

- a source wiring formed on said first insulating film;

- a second insulating film covering at least said at least one electrode and said source wiring;

- a gate wiring formed over said second insulating film, and connected to said at least one electrode; and

- a pixel electrode formed over said second insulating film, and electrically connected to said semiconductor layer.

34. (Original) A semiconductor device according to claim 33, further comprising a common wiring on said second insulating film, wherein said pixel electrode and said common wiring are arranged so that an electric field substantially parallel to a surface of said substrate is generated.

35. (Original) A semiconductor device according to claim 33, said semiconductor device is a reflection-type liquid crystal display device in which said pixel electrode comprises a film containing Al or Ag or a lamination film thereof.

36. (Original) A semiconductor device according to claim 33, said semiconductor device is a transmission-type liquid crystal display device in which said pixel electrode comprises a transparent electrically conductive film.

37. (Previously Presented) A semiconductor device according to claim 33, said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.

38-44. (Canceled)

45. (Currently Amended) A semiconductor device comprising:
a semiconductor layer formed over an insulating substrate; [[and]]
at least one electrode adjacent to said semiconductor layer with a first insulating film interposed therebetween;
a source wiring formed on said first insulating film;
a second insulating film covering at least said at least one electrode and said source wiring;
and
a gate wiring formed over said second insulating film, and electrically connected to said at least one electrode.

46. (Previously Presented) A semiconductor device according to claim 45, wherein said gate wiring overlaps a portion of said semiconductor layer containing at least a channel formation region.

47. (Previously Presented) A semiconductor device according to claim 45, wherein said at least one electrode and said source wiring comprise a same material.

48. (Previously Presented) A semiconductor device according to claim 45, wherein a material of said gate wiring comprises one or a plurality of elements selected from the group consisting of poly-Si, W, WSi_x , Al, Cu, Ta, Cr and Mo.

49. (Previously Presented) A semiconductor device according to claim 45, wherein said first insulating film comprises a gate insulating film.

50. (Previously Presented) A semiconductor device according to claim 45, wherein said second insulating film further comprises a first insulating layer containing silicon as a main component and a second insulating layer containing an organic resin material.

51. (Previously Presented) A semiconductor device according to claim 45, wherein said semiconductor device is one selected from the group consisting of a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disk player, a portable telephone, an electronic book, a projector, a head mounted type display, and an electric game appliance.